Listing of Claims:

1. (Currently amended) A method for fabricating a buried bit line of a mask ROM, the method comprising:

providing a semiconductor substrate with a photoresist layer coated on the semiconductor substrate;

patterning the photoresist layer to form a photoresist pattern;

performing a first ion implantation process to form a ~~first doped region~~ lightly doped drain region in the semiconductor substrate not covered by the photoresist pattern;

forming an organic non-poly spacer on sidewall of the photoresist pattern;

performing a second ion implantation process to form a ~~second doped region~~ heavily doped region in the semiconductor substrate not covered by the photoresist pattern and the organic spacer; and

stripping the photoresist pattern and the organic spacer.

2. (Original) The method of claim 1 further comprising performing a hot treatment process to harden the photoresist pattern after performing the first ion implantation process.

3. (Original) The method of claim 2 wherein the hot treatment process is an UV curing process or a hot plate process.

4. (Canceled)

5. (Currently amended) The method of claim 1 wherein the ~~second~~ heavily doped region is an N^+ doped region.

6. (Original) The method of claim 1 wherein the organic layer is made of a bottom

anti-reflective coating (BARC).

7. (Original) The method of claim 1 wherein the step of forming the organic spacer includes a step of performing a dry etching process.

8. (Currently amended) A method for fabricating a mask ROM, the method comprising:
providing a semiconductor substrate with a photoresist layer coated on the semiconductor substrate;
patterning the photoresist layer to form a photoresist pattern;
performing a first ion implantation process to form a ~~first doped region~~ lightly doped drain region in the semiconductor substrate not covered by the photoresist pattern;
performing a hot treatment process to harden the photoresist pattern;
forming an organic non-poly spacer on sidewall of the photoresist pattern;
performing a second ion implantation process to form a ~~second doped region~~ heavily doped region in the semiconductor substrate not covered by the photoresist pattern and the organic spacer;
stripping the photoresist pattern and the organic spacer; and
forming an insulating layer on the semiconductor substrate and an word line on the insulating layer.

9. (Original) The method of claim 8 wherein the hot treatment process is an UV curing process or a hot plate process.

10. (Canceled)

11. (Currently amended) The method of claim 8 wherein the ~~second~~ heavily doped region is an N^+ doped region.

12. (Original) The method of claim 8 wherein the organic spacer is made of a bottom anti-reflective coating (BARC) material.

13. (Original) The method of claim 8 wherein the step of forming the organic spacer includes a step of performing a dry etching process.